-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _10/31/2005_.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-26_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-26_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments, filed 10/31/2005, with respect to the rejection(s)of

claim(s) 1, 12, 16, 17, 18, 19, and 23 have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a

new ground(s) of rejection is made in view of.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

2.   Claims 1, 3-4, 9, 12, and 14-19, 21-23, and 25-26 are rejected under 35 U.S.C.

103(a) as being unpatentable over Kumar in view of Jeong.

Regarding claim 1, a method for resynchronizing a PPP link is disclosed in

Kumar, column 1, lines 51-55 (disclosing using an IWF to coordinate base stations in a

PPP network). Detecting a trigger indicating whether a remote station is associated

with a new base station is disclosed in column 3, lines 4-7 (in soft handoff mode, a

remote station is associated with a new base station). Re-synchronizing the PPP link is

disclosed in column 3, lines 7-15 (the link is resynched whenever there is a handoff).

Determining whether the new base station is associated with a new network server, and

resynching if there is a new network server, is missing from Kumar. However, Jeong

discloses in column 2, lines 58-65, a method that detects performing an inter-MSC

handoff and synchronizing the link after the inter-MSC handoff is complete (an MSC

serves its BTSs, it is equivalent to a network server). It would have been obvious to one

skilled in the art at the time of the invention to synchronize the link when the link is

associated with a new network server, as is disclosed in Jeong, in the system of Kumar.

The motivation would be to allow the mobile to roam smoothly between cells in the

network (See Jeong, column 1, lines 39-54, describing difficulties in unsynchronized

inter-MSC handoff).

Regarding claim 3, the detecting comprising detecting a message indicating a

handoff is disclosed in column 3, lines 4-7.

Regarding claim 4, the detecting comprising detecting coming out of dormancy is

disclosed in column 3, line 59-column 4, line 2 (disclosing the need for synchronization

during the reactivation process).

Regarding claim 9, the network server comprising a IWF is disclosed in column

1, lines 51-55.

Regarding claim 11, the remote station functioning in a CDMA environment is

disclosed in column 1, line 20.

Regarding claim 12, a method for re-synchronization of a PPP link, and

establishing a PPP link is disclosed in Kumar, column 1, lines 51-55 (disclosing using

an IWF to coordinate base stations in a PPP network). Detecting a condition that

indicates whether PPP re-synchronization is required and resynchronizing the PPP link

if it is determined that PPP resynchronization is required is disclosed in column 3, lines

4-7 (handoff mode is a condition in which re-synchronization is required). Determining

whether the new base station is associated with a new network server, and resynching

if there is a new network server, is missing from Kumar. However, Jeong discloses in

column 2, lines 58-65, a method that detects performing an inter-MSC handoff and

synchronizing the link after the inter-MSC handoff is complete (an MSC serves its BTSs,

it is equivalent to a network server). It would have been obvious to one skilled in the art

at the time of the invention to synchronize the link when the link is associated with a

new network server, as is disclosed in Jeong, in the system of Kumar. The motivation

would be to allow the mobile to roam smoothly between cells in the network (See

Jeong, column 1, lines 39-54, describing difficulties in unsynchronized inter-MSC

handoff).

Regarding claim 14, the detecting comprising detecting a message indicating a

handoff is disclosed in column 3, lines 4-7.

Regarding claim 15, the detecting comprising detecting coming out of dormancy

is disclosed in column 3, line 59-column 4, line 2 (disclosing the need for

synchronization during the reactivation process).

Regarding claim 16, a computer-readable medium embodying a method for re-

synchronizing a PPP link is disclosed in Kumar, column 11, line 47. Detecting a trigger

indicating whether a remote station is associated with a new base station is disclosed in

column 3, lines 4-7 (in soft handoff mode, a remote station is associated with a new

base station). Re-synchronizing the PPP link is disclosed in column 3, lines 7-15 (the

link is resynched whenever there is a handoff). Determining whether the new base

station is associated with a new network server, and resynching if there is a new

network server, is missing from Kumar. However, Jeong discloses in column 2, lines

58-65, a method that detects performing an inter-MSC handoff and synchronizing the

link after the inter-MSC handoff is complete (an MSC serves its BTSs, it is equivalent to

a network server). It would have been obvious to one skilled in the art at the time of the

invention to synchronize the link when the link is associated with a new network server,

as is disclosed in Jeong, in the system of Kumar. The motivation would be to allow the

mobile to roam smoothly between cells in the network (See Jeong, column 1, lines 39-

54, describing difficulties in unsynchronized inter-MSC handoff).

Regarding claim 17, a remote station apparatus is disclosed in column 3,

line 6 (disclosing a mobile unit). Means for detecting a trigger indicating whether a

remote station is associated with a new base station is disclosed in column 3, lines 4-7

(in soft handoff mode, a remote station is associated with a new base station). Means

for re-synchronizing the PPP link is disclosed in column 3, lines 7-15 (the link is

resynched whenever there is a handoff). Means for determining whether the new base

station is associated with a new network server, and resynching if there is a new

network server, is missing from Kumar. However, Jeong discloses in column 2, lines

58-65, a method that detects performing an inter-MSC handoff and synchronizing the

link after the inter-MSC handoff is complete (an MSC serves its BTSs, it is equivalent to

a network server). It would have been obvious to one skilled in the art at the time of the

invention to synchronize the link when the link is associated with a new network server,

as is disclosed in Jeong, in the system of Kumar. The motivation would be to allow the

mobile to roam smoothly between cells in the network (See Jeong, column 1, lines 39-

54, describing difficulties in unsynchronized inter-MSC handoff).

Regarding claim 18, a base station apparatus is disclosed in column 3, line 5. Means for detecting a trigger indicating whether a remote station is associated with a new base station is disclosed in column 3, lines 4-7 (in soft handoff mode, a remote station is associated with a new base station). Means for re-synchronizing the PPP link is disclosed in column 3, lines 7-15 (the link is resynched whenever there is a handoff). Means for determining whether the new base station is associated with a new network server, and resynching if there is a new network server, is missing from Kumar. However, Jeong discloses in column 2, lines 58-65, a method that detects performing an inter-MSC handoff and synchronizing the link after the inter-MSC handoff is complete (an MSC serves its BTSs, it is equivalent to a network server). It would have been obvious to one skilled in the art at the time of the invention to synchronize the link when the link is associated with a new network server, as is disclosed in Jeong, in the system of Kumar. The motivation would be to allow the mobile to roam smoothly between cells in the network (See Jeong, column 1, lines 39-54, describing difficulties in unsynchronized inter-MSC handoff).

Regarding claim 19, a base station apparatus is disclosed in column 3, line 5, of Kumar. Means for detecting a trigger indicating whether a remote station is associated with a new base station is disclosed in column 3, lines 4-7 (in soft handoff mode, a remote station is associated with a new base station). Means for determining whether the base station is associated with a new network server is missing from Kumar. However, Jeong discloses in column 2, lines 58-65, a method that detects performing an inter-MSC handoff and synchronizing the link after the inter-MSC handoff is complete

(an MSC serves its BTSs, it is equivalent to a network server). It would have been

obvious to one skilled in the art at the time of the invention to synchronize the link when

the link is associated with a new network server, as is disclosed in Jeong, in the system

of Kumar. The motivation would be to allow the mobile to roam smoothly between cells

in the network (See Jeong, column 1, lines 39-54, describing difficulties in

unsynchronized inter-MSC handoff). Claim 19 further specifies that the detecting is

done by a processor, which is not specifically disclosed in Kumar. However, a base

station would normally have a processor to carry out such functions. It would have

been obvious to one skilled in the art at the time of the invention to have a processor do

the detecting. The motivation would be to use the part of the base station that is

normally used to carry out the functions of the base station. A receiver adapted to

receive and a transmitter adapted to transmit PPP re-synchronization signals, the

receiver and transmitter being connected to the processor, is disclosed in Kumar,

column 3, lines 5-7 (the base station would not be able to communicate with the mobile

unit if it did not have a receiver and transmitter).

Regarding claim 23, a remote station apparatus is disclosed in column 3,

line 6. Means for detecting a trigger indicating whether a remote station is associated

with a new base station is disclosed in column 3, lines 4-15 (in soft handoff mode, a

remote station is associated with a new base station). Means for determining whether

the base station is associated with a new network server is missing from Kumar.

However, Jeong discloses in column 2, lines 58-65, a method that detects performing

an inter-MSC handoff and synchronizing the link after the inter-MSC handoff is complete

(an MSC serves its BTSs, it is equivalent to a network server). It would have been obvious to one skilled in the art at the time of the invention to synchronize the link when the link is associated with a new network server, as is disclosed in Jeong, in the system of Kumar. The motivation would be to allow the mobile to roam smoothly between cells in the network (See Jeong, column 1, lines 39-54, describing difficulties in unsynchronized inter-MSC handoff). Claim 23 further specifies that the detecting is done by a processor, which is not specifically disclosed in Kumar. However, a base station would normally have a processor to carry out such functions. It would have been obvious to one skilled in the art at the time of the invention to have a processor do the detecting. The motivation would be to use the part of the base station that is normally used to carry out the functions of the base station. A receiver adapted to receive and a transmitter adapted to transmit PPP re-synchronization signals, the receiver and transmitter being connected to the processor, is disclosed in column 3, lines 5-7 (the mobile unit would not be able to communicate with the base station if it did not have a receiver and transmitter).

Regarding claims 21 and 25, the detecting comprising detecting a message indicating a handoff is disclosed in column 3, lines 4-7.

Regarding claims 22 and 26, the detecting comprising detecting coming out of dormancy is disclosed in column 3, line 59-column 4, line 2 (disclosing the need for synchronization during the reactivation process).

3.   Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar in view of Jeong in further view of Rasanen. The detecting comprising detecting an

RLP reset is missing from Kumar. However, Rasanen discloses in column 2, lines 35-37, and column 7, lines 4-6, that the RLP reset state causes the releasing of a connection when the quality of the link degrades to a certain level. It would have been obvious to one skilled in the art at the time of the invention to resynch the PPP connection when an RLP reset was detected. The motivation would be to resynch the remaining connections to the mobile terminal when it releases one of its connections.

4.   Claims 2, 20, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar in view of Jeong in further view of Rasanen. The detecting comprising detecting an RLP reset is missing from Kumar. However, Rasanen discloses in column 2, lines 35-37, and column 7, lines 4-6, that the RLP reset state causes the releasing of · a connection when the quality of the link degrades to a certain level. It would have been obvious to one skilled in the art at the time of the invention to resynch the PPP connection when an RLP reset was detected. The motivation would be to resynch the remaining connections to the mobile terminal when it releases one of its connections.

5.   Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar in view of Jeong in further view of Ludwig.

        Regarding claim 5, the determining comprising whether a received packet is a control packet is missing from Kumar. However, Ludwig discloses that control packets, such as LCP request packets and IPCP request packets, are exchanged whenever a link is established in column 4, lines 44-62. Kumar discloses in column 3, lines 4-15, that a new link being established is a time when synchronization would need to occur. It would have been obvious to one skilled in the art at the time of the invention to use

control packets to determine when to synchronize. The motivation would be to use packets that are normally exchanged when an event that will necessitate synchronization occurs.

Regarding claim 6, the control packet comprising a LCP negotiation request is missing from Kumar. However, Ludwig discloses that LCP request packets are exchanged when a link is established in column 4, lines 44-62. Kumar discloses in column 3, lines 4-15, that a new link being established is a time when synchronization would need to occur. It would have been obvious to one skilled in the art at the time of the invention to use LCP request packets to determine when to synchronize. The motivation would be to use packets that are normally exchanged when an event that will necessitate synchronization occurs.

Regarding claim 7, the control packet comprising a IPCP negotiation request is missing from Kumar. However, Ludwig discloses that IPCP request packets are exchanged when a link is established in column 4, lines 44-62. Kumar discloses in column 3, lines 4-15, that a new link being established is a time when synchronization would need to occur. It would have been obvious to one skilled in the art at the time of the invention to use IPCP request packets to determine when to synchronize. The motivation would be to use packets that are normally exchanged when an event that will necessitate synchronization occurs.

6.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar in view of Jeong in further view of Kalliokulju. The re-synching being done only on the Um interface is missing from Kumar. Kalliokulju discloses in column 4, lines 1-3, that the

wireless communications device is coupled to the base station via radio interface Um. It would have been obvious to one skilled in the art at the time of the invention to do the synching on Um. The motivation would be to synch the connection between the mobile and the base station.

7.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar in view of Jeong in further view of Basilier. The network server comprising a PDSN is missing from Kumar. However, Basilier discloses in column 4, lines 2-4, use of a PSDN in a mobile network. It would have been obvious to one skilled in the art at the time of the invention to use a PDSN as the network server. The motivation would be to support packet communications.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia L Davis whose telephone number is (571) 272-3117. The examiner can normally be reached on 8:30 to 6, Monday to Thursday.
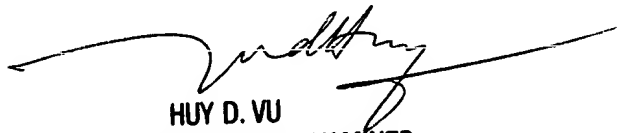
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (703) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the
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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600